



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,161	12/13/2001	Paul S. Lugg	56304US002	1351

32692 7590 03/26/2003

3M INNOVATIVE PROPERTIES COMPANY
PO BOX 33427
ST. PAUL, MN 55133-3427

EXAMINER

CHEVALIER, ALICIA ANN

ART UNIT PAPER NUMBER

1772

DATE MAILED: 03/26/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-5

Office Action Summary

Application No.

10/021,161

Applicant(s)

LUGG, PAUL S.

Examiner

Alicia Chevalier

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 23-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Pieper et al. (5,152,917).

Pieper discloses an abrasive article comprising a polishing layer have a textured surface comprising a binder and a second surface opposite the textured surface and a backing having a first backing surface, the first backing surface associated with the second surface of the polishing layer, which is arranged in an ordered profile. The profile comprises grooves (first and second channels) through the polishing layer and into the backing layer. The more consistent an abrasive article of the invention, the more consistent will be the finish imparted by the abrasive to the work piece. An abrasive article having an ordered profile has a high level of consistency, since the height of the peaks of the abrasive composites will normally not vary more than 10%. See figures 1 and 3 and col. 7 lines 16-20, 63-68 and col. 8, lines 16-48.

The textured surface comprises precisely shaped abrasive composites fixed in a binder. The groove (1st and 2nd channel) is dimensioned with respect to one another such that the textured surface of the polishing layer is outside of a line of sight by less than 0.5 mm (col. 8, lines 34-48).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 23-33 and 36-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rutherford et al. (5,692,950) in view of Pieper et al. (5,152,917).

Rutherford discloses an abrasive article comprising a polishing layer have a textured surface comprising a binder and a second surface opposite the textured surface and a backing having a first backing surface, the first backing surface associated with the second surface of the polishing layer. The textured surface comprises precisely shaped abrasive composites fixed in a binder. The backing further comprises a first backing layer of polycarbonate, a second backing layer of a foamed polymeric material, and a third backing layer of polycarbonate. See the figure and col. 7, line 52 to col. 8, line 44.

Rutherford discloses all the limitations of the instant claimed invention except for a 1st channel in the polishing layer with a corresponding 2nd channel in the backing.

Pieper discloses an abrasive article comprising a polishing layer and a backing layer which arranged in an ordered profile. The profile comprises grooves (first and second channels) through the polishing layer and into the backing layer. The more consistent an abrasive article of the invention, the more consistent will be the finish imparted by the abrasive to the work piece. An abrasive article having an ordered profile has a high level of consistency, since the height of the peaks of the abrasive composites will normally not vary more than 10%. See figures 1 and 3 and col. 7 lines 16-20, 63-68 and col. 8, lines 16-48. The groove (1st and 2nd channel) is dimensioned with respect to one another such that the textured surface of the polishing layer is outside of a line of sight by less than 0.5 mm (col. 8, lines 34-48).

It would have been obvious to one of ordinary skill in the art to impart an ordered profile (first and second channels) in the abrasive article of Rutherford as taught by Pieper because the ordered profile would provide a higher level of consistency to the article.

Pieper also discloses several different shapes and configurations of the profile, see figure 3-9. It is well settled that a particular shape of a prior invention carries no patentable weight unless the applicant can demonstrate that the new shape provides significant unforeseen improvements to the invention. See *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947) (Claim was directed to an advertising display device comprising a bottle and a hollow member in the shape of a human figure from the waist up which was adapted to fit over and cover the neck of the bottle, wherein the hollow member and the bottle together give the impression of a human body. Appellant argued that certain limitations in the upper part of the body, including the arrangement of the arms, were not taught by the prior art. The court found that matters relating to ornamentation only which have no mechanical function cannot be relied upon to patentably

Art Unit: 1772

distinguish the claimed invention from the prior art.) Also, see *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (the court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.) In the instant case, the application does not indicate any new, significant attributes of the invention due to its shape which would have been unforeseen to one of ordinary skill in the art.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to change the shape and/or configuration of the grooves/channels. One skilled in the art would have been motivated to do so in order to optimize the consistency of the abrasive article.

5. Claims 34, 35, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rutherford et al. (5,692,950) in view of Pieper et al. (5,152,917) as applied to claims 23-33 and 36-40 above, and further in view of Barber, Jr. (6,179,887).

Rutherford and Pieper disclose all the limitations of the instant invention except for the grooves containing holes.

Barber discloses an abrasive article which comprises through holes for mounting the article onto an assembly for use (col. 15, lines 9-18).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add holes to the grooves in Rutherford because it would allow the abrasive article of Rutherford to be mounted.

Art Unit: 1772

It is well settled that a particular shape of a prior invention carries no patentable weight unless the applicant can demonstrate that the new shape provides significant unforeseen improvements to the invention. See *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947) (Claim was directed to an advertising display device comprising a bottle and a hollow member in the shape of a human figure from the waist up which was adapted to fit over and cover the neck of the bottle, wherein the hollow member and the bottle together give the impression of a human body. Appellant argued that certain limitations in the upper part of the body, including the arrangement of the arms, were not taught by the prior art. The court found that matters relating to ornamentation only which have no mechanical function cannot be relied upon to patentably distinguish the claimed invention from the prior art.) Also, see *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (the court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.) In the instant case, the application does not indicate any new, significant attributes of the invention due to its shape which would have been unforeseen to one of ordinary skill in the art.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to change the shape and/or configuration of the holes. One skilled in the art would have been motivated to do so in order to accommodate the fastening mechanism.

Art Unit: 1772

Conclusion

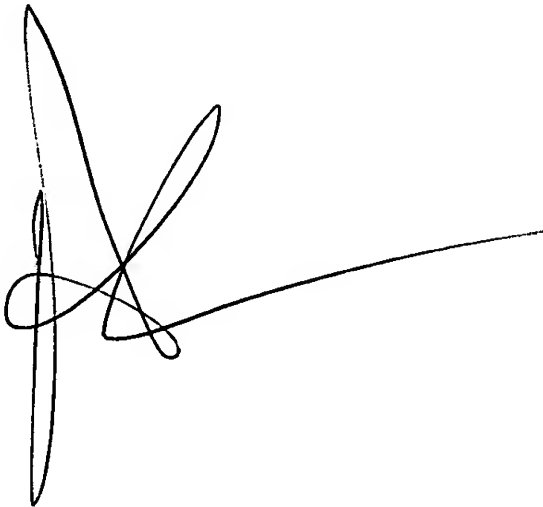
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (703) 305-1139. The Examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 5:00 p.m. The Examiner can also be reached on alternate Fridays


If attempts to reach the Examiner are unsuccessful, the Examiner's supervisor, Harold Pyon can be reached by dialing (703) 308-4251. The fax phone number for the organization official non-final papers is (703) 872-9310. The fax number for after final papers is (703) 872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose phone number is (703) 308-0661.

ac

3/21/03

A large, stylized handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772 3/24/03